Original Article

Frequency of Dyslipidemia in Patients with Lichen Planus: A Comparative Cross-Sectional Study

Sana Khan, Muhammad Suleman Pirzado, Hafiz Bashir Ahmed Kalhoro, Nadia Rajper, Sikander Munir Memon, Faryal Hussain Memon

$%675$&7

2%-(&7,9(7R GHWHUPLQH WKH UHODWLRQVKLS EHWZHHQ OLFKHQ SODQXV
0(7+2'2/2*< ,W ZDV D FRPSDUDWLYH FURVV-VHFWLRQDO VWXG\ FRQGXFWHG DW WK
GHUPDWRORJ\ /LDTXDW 8QLYHUVLW\ RI 0HGLFDO +HDOWK 6FLHQFHV
7KH VWXG\ LQFOXGHG ERWK JHQGHUV DJHG WR LQFOXGLQJ
SODQXV RI PRUH WKDQ RQH PRQWK (DFK SDWLHQW V EORRG VDPSOH DI
VHQW WR WKH /80+6 GLDJQRVWLF DQG UHVHDUFK ODERUDWRU\ IRU OLSL
WKDQ PJ G/ DQG HOHYDWHG +'/ WKDQ PJ G/ LQ /3 SDWLHQWV :K
SDWKRORJLVW SUHSDUHG HDFK UHSRUW WR DVVHVV WKH SUHVHQFH
RU DEVHQFH RI G\VOLSLGHPLD ZDV QRWHG $OO RI WKHVH GDWD ZHUH
IRUPD
5(68/76 0HDQ DJH ZDV " \HDUV 2XW RI SDWLHQWV ZH
ZHUH IHPDOHV ZLWK D UDWLR RI EHWZHHQ PDOHV DQG IHPDOHV LQ
SDWLHQWV ZKR ZHUH VHHQ LQ SDWLHQWV DQG RGGV UD

&21&/86,21 7KLV VWXG\ FRQFOXGHG WKDW WKH IUHTXHQF\ RI G\VOLSLG
SDWLHQWV FRPSDUHG WR KHDOWK\ LQGLYLGXDOV

.(<:25'6 /LFKHQ 3ODQXV &KROHVWHURO '\VOLSLGHPLD 'HUPDWRORJ\

This article may be cited as: **Khan S, Pirzado MS, Kalhoro HBA, Rajper N, Memon SM, Memon FH. Frequency of Dyslipidemia in Patients with Lichen Planus: A Comparative Cross-Sectional Study. J Liaquat Uni Med Health Sci. 2022;21(02):121-5.**

,1752'8&7,21

Lichen planus (LP) is an autoimmune disease of chronic inflammation that affects the face, mouth, genital mucosa, scalp and nails. Six P's (planar, purple, polygonal, pruritus, papules and plaques) are used to identify LP lesions. Generally, the presentation is acute, and the flexor surfaces of wrists, forearms and legs are affected. Often the lesions show lacy, reticular, white lines called Wickham striae . The exact cause of LP is not very clearly understood. It was found to be an immunologically mediated disease, and some triggers are clinically found to be responsible for it. There are obvious links with the facts, such as drugs, stress, environmental allergens, food allergens and systemic illness.

Dyslipidemias are disorders of lipoprotein metabolism, including the overproduction and deficiency of lipoproteins. Many dermatological disorders are known to be associated with dyslipidemia. Most of these are chronic inflammatory diseases, and the underlying mechanism may involve the secretion of pro-inflammatory cytokines. Studies have shown an increased frequency of dyslipidemia in skin disorders such as psoriasis, lichen planus, pemphigus, granuloma annulare, histiocytosis, and connective tissue disorders such as lupus erythematosus. It was established that lichen planus was associated with dyslipidemia . Chronic inflammation can explain the association with dyslipidemia in patients with lichen planus. Studies have reported that individuals with lichen planus have significantly higher levels of various lipids compared to the control group . Santiago AS et al. revealed the higher dyslipidemia prevalence in lichen planus patients relative to the cases group, i.e. 61.3% vs 32.5%.

Epidermal cells in LP have demonstrated enzyme defects as well as impaired expression of the carbohydrate. Among patients living with LP, there was an increased incidence of diabetes and resistance to carbohydrates, indicating their possible role in the pathogenesis . Oral LP was also diabetes-related . However, not all research found similar results: the prevalence of systemic diseases such as hypertension (21%), arthritis (14%) and diabetes (5%) was not higher than projected in the general population in a single report . Very few studies investigated the connection between LP and dyslipidemia to our knowledge.

Received: ***26-11-2020***
Revised: ***20-04-2021***
Accepted: ***21-04-2021***
Published Online: ***08-05-2021***

0(7+2'2/2*<

5(68/76

7DEOH ,

7DEOH ,,

7DEOH ,,,

7DEOH ,9

7$%/(, ',675,%87,21 2)23$7,(176
$&&25',1* 72 '<6/,3,'(0,$,1 %27+ *52836

	$-JURXS Q	%JURXS Q
'\VOLSLGHPLD		
2EHVLW\ -%0,		
+71		

The P-value is statistically significant at 0.001.
The odds ratio is statistically significant at 4.148.

7$%/(,, 675$77,)2&1$2) $-5((/$7('
'<6/,3,'(0,$

$JH RI SDWLHQWV	$-*URXS Q \HDUV	%JURXS Q \HDUV	3-YDOXH
-			
-			
*HQGHU			
0DOH			
)HPDOH			

7$%/(,,, '<6/,3,'(0,$(675$7,),&$7,21
&21&(51,1* 7+('85$7 2) 7+(',6($6(

'XUDWLRQ RI GLVHDVH PRQWKV	$-*URXS Q \HDUV	%JURXS Q \HDUV	3-YDOXH
” PRQWKV			
! PRQWKV			

7$%/(,9 675$77,)2&1$2) '<6/,3,'(0,$
&21&(51,1* ',$%(7(6/,786

'LDEHWHV PHOOLWXV	$-*URXS Q \HDUV	%JURXS Q \HDUV	3-YDOXH
<HV			
1R			
+\SHUWHQVLRQ			
<HV			
1R			
2EHVLW\			
<HV			
1R			

',6&866,21

-

&21&/86,21

(WKLFDO SHUPLVVLRQ

&RQIOLFW RI ,QWHUHVW

)XQGLQJ

'DWD 6KDULQJ 6WDWHPHQW

$87+25 &2175,%87,216

5()(5(1&(6

AUTHOR AFFILIATION:

Dr. Sana Khan
Department of Dermatology
Liaquat University of Medical & Health Sciences
(LUMHS), Jamshoro, Sindh Pakistan.

Dr. Muhammad Suleman Pirzado
Assistant Professor
Department of Molecular Biology and Genetics Laboratory
LUMHS, Jamshoro, Sindh Pakistan.

Dr. Hafiz Bashir Ahmed Kalhoro
Assistant Professor
Department of Dermatology
LUMHS, Jamshoro, Sindh Pakistan.

Dr. Nadia Rajper
Department of Dermatology
LUMHS, Jamshoro, Sindh Pakistan.

Dr. Sikander Munir Memon *(Corresponding Author)*
Research Officer, Medical Research Center
LUMHS, Jamshoro, Sindh Pakistan.
Email: drsikandermemon@gmail.com

Dr. Faryal Hussain Memon
Department of Dermatology
LUMHS, Jamshoro, Sindh Pakistan.